

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/004455

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ A61K38/17, 47/24, A61P35/00, 37/04, 31/00, 43/00, C12N15/12,
C07K14/47

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ A61K38/17, 47/24, C12N15/12, C07K14/47

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

SwissProt/PIR/GeneSeq, Genbank/EMBL/DDBJ/GeneSeq,
CAPLUS/MEDLINE/EMBASE/BIOSIS (STN), JSTplus (JOIS)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 00/50607 A2 (SAUS, Juan), 31 August, 2000 (31.08.00), Claims; pages 19 to 20; examples (Family: none)	1, 2, 4-6 3, 7-15
X A	RAYA, A. et al., "Characterization of a novel type of serine/threonine kinase that specifically phosphorylates the human goodpasture antigen.", J.Biol.Chem., 1999, Vol.274, No.18, pages 12642 to 12649	1, 2, 4-6 3, 7-15
X A	RAYA, A. et al., "Goodpasture antigen-binding protein, the kinase that phosphorylate the goodpasture antigen, is an alternatively spliced variant implicated in autoimmune pathogenesis.", J.Biol.Chem., 2000, Vol.275, No.51, pages 40392 to 40399	1, 2, 4-6 3, 7-15

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
29 June, 2004 (29.06.04)

Date of mailing of the international search report
13 July, 2004 (13.07.04)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

According to claim 1, the present invention relates to a drug promoting ceramide transport which contains CRET protein as the active ingredient and the above protein had been publicly known as stated in the background art of the description. Thus, it is recognized that "the special technical feature" of the present invention resides in specific use of the above protein per se.

However, the inventions according to claims 5 and 6 relate not to the use of the above protein but to DNA encoding the above protein per se. Accordingly, it cannot be considered that there is "a special technical feature" among these groups of inventions. (Continued to extra sheet.)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark: on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No. III of continuation of first sheet (2)

Such being the case, it is obvious that the inventions according to claims 1 to 4 and 7 to 15 and the inventions according to claims 5 and 6 do not comply with the requirement of unity of invention.

Even though the statement in the description is discussed, it is unclear what drugs, in addition to the protein as set forth in claim 1, are involved in the scope of the term "a drug promoting ceramide release" as described in claims 7 to 15 and what are not, which makes the scope of the present invention unclear.

Thus, claims 7 to 15 and the description do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out.

Such being the case, prior art documents were searched for in this international search report concerning the drugs specifically presented in the description.